We claim:

1. A semiconductor device comprising:

a gate oxide layer on a semiconductor substrate;

a conductive layer on the gate oxide layer; and

a metal oxide layer at an interface between the gate oxide layer and the conductive layer.

2. The semiconductor device according to claim 1, wherein the gate oxide layer is a silicon oxide layer.

3. The semiconductor device according to claim 1, wherein the gate oxide layer has a thickness of 10 to 100Å.

4. The semiconductor device according to claim 1, wherein the conductive layer comprises a conductive material selected from a group consisting of metals and metal nitrides.

5. The semiconductor device according to claim 4, wherein the conductive layer comprises at least one

metal selected from a group consisting of tungsten, tantalum, titanium, and aluminum.

6. The semiconductor device according to claim 4, wherein the conductive layer comprises at least one metal nitride selected from a group consisting of tungsten nitride (WN), tantalum nitride (TaN), titanium nitride (TiN) and aluminum nitride (AlN).

7. The semiconductor device according to claim 1, wherein the conductive layer has a thickness of 100 to 2000Å.

8. The semiconductor device according to claim 1, wherein the metal oxide layer comprises an oxide layer having a dielectric constant of at least 3.9.

9. A method of fabricating a semiconductor device, comprising the steps of:

preparing a semiconductor substrate;

forming a silicon oxide layer on the semiconductor substrate;

forming a conductive layer on the silicon oxide layer; and

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forming a metal oxide layer at an interface between the silicon oxide layer and the conductive layer.

10. A method of fabricating a semiconductor device according to claim 9, wherein the step of forming a silicon oxide layer further comprises forming a silicon dioxide layer having a thickness of 10 to 100Å.

11. A method of fabricating a semiconductor device according to claim 9, wherein the step of forming the conductive layer further comprises forming a metal layer or a metal nitride layer.

12. A method of fabricating a semiconductor device according to claim 11, wherein the step of forming the metal layer further comprises forming a layer of at least one metal selected from a group consisting of tungsten (W), tantalum (Ta), titanium (Ti), and aluminum (Al).

13. A method of fabricating a semiconductor device according to claim 11, wherein the step of forming the metal nitride layer further comprises forming a layer of at least one metal nitride selected from a group

consisting of tungsten nitride (WN), tantalum nitride (TaN), titanium nitride (TiN) and aluminum nitride (AlN).

14. A method of fabricating a semiconductor device according to claim 9, wherein the step of forming the conductive layer further comprises forming a conductive layer having a thickness of 100 to 2000Å.

15. A method of fabricating a semiconductor device according to claim 9, wherein the step of forming a metal oxide layer at an interface between the silicon oxide layer and the conductive layer further comprises a thermal treatment, the thermal treatment being conducted at a temperature of 500 to 1000°C and under an inert gas ambient.

16. A method of fabricating a semiconductor device according to claim 15, wherein the inert gas comprises at least one gas selected from a group consisting of nitrogen (N), argon (Ar), and helium (He).

17. A method of fabricating a semiconductor device according to claim 9, wherein the step of forming a metal oxide layer further comprises forming a metal

oxide layer having a dielectric constant of at least 3.9.

18. A method of fabricating a semiconductor device according to claim 9, wherein the step of forming a metal oxide layer further comprises oxidizing a portion of the metal layer with oxygen atoms from the silicon oxide layer.

19. A method of fabricating a semiconductor device according to claim 9, wherein the silicon oxide layer is a gate insulator and the conductive layer is a gate electrode.